Name _____ **School** _____

Town _____ **Grade** _____ **Phone** _____

LEARNING RESULTS			**DEGREE OF MATCH**	0=no link 1=weak link 2=good link 3=strong link
A.	**CLASSIFYING LIFE FORMS** **Students will understand that there are similarities within the diversity of all living things. Students will be able to:**			
A1.	Group the same organisms in different ways using different characteristics.			
A2.	Design and describe a classification system for organisms.			
A3.	Describe the different living things within a given habitat.			
A4.	Compare and contrast the life cycles, behavior, and structure of different organisms.			
B.	**ECOLOGY** **Students will understand how living things depend on one another and on non-living aspects of the environment. Students will be able to:**			
B1.	Describe a food web and the relationships within a given ecosystem.			
B2.	Explain the difference between producers (e.g., green plants), consumers (e.g., those that eat green plants), and decomposers (e.g., bacteria that break down the "consumers" when they die), and identify			
B3.	Compare and contrast physical and living components of different biomes - i.e., regions characterized by their climate and plant life - (e.g., tundra, rain forest, ocean, desert).			

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B4.	Investigate the connection between major living and non living components of a local ecosystem.			
C.	**CELLS** **Students will understand that cells are the basic units of life. Students will be able to:**			
C1.	Demonstrate an understanding that a cell is the basic unit of living organisms.			
C2.	Describe how single celled organisms exist.			
C3.	Explore how the use of a microscope allows one to see cells in a variety of organisms.			
C4.	Describe the functions of the major human organ systems.			
D.	**CONTINUITY AND CHANGE** **Students will understand the basis for all life and that all living things change over time. Students will be able to:**			
D1.	Identify present day organisms that have not always existed, and past life forms that have become extinct.			
D2.	Describe how fossils form.			
D3.	Explain how adaptations, in response to change over time, may increase a species' chances of survival.			
D4.	Describe ways in which organisms may be similar to and different from their parents and explore the possible reasons for this.			
E.	**STRUCTURE OF MATTER**			

LEARNING RESULTS			DEGREE OF MATCH	0=no link 1=weak link 2=good link 3=strong link
	Students will understand the structure of matter and the changes it can undergo. Students will be able to:			
E1.	Describe how the physical properties of objects sometimes change when one object chemically combines with another.			
E2.	Explain how matter changes in both chemical and physical ways.			
F.	**THE EARTH** **Students will gain knowledge about the earth and the processes that change it. Students will be able to:**			
F1.	Describe the change in position of the continents over time.			
F2.	Demonstrate an understanding that many things about the earth (e.g., climate) occur in cycles that vary in length and frequency.			
F3.	Describe differences among minerals, rocks and soils.			
F4.	Illustrate how water and other substances go through a cyclic process of change in the environment.			
G.	**THE UNIVERSE** **Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:**			
G1.	Illustrate the relative positions of the sun, moon, and planets.			
G2.	Trace the sources of earth's heat and light energy to the sun.			

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G3.	Describe earth's rotation on its axis and its revolution around the sun.			
G4.	Explore the relationship between the earth and its moon.			
H.	**ENERGY** **Students will understand concepts of energy. Students will be able to:**			
H1.	Identify different forms of energy (e.g., light, sound, heat).			
H2.	Explain ways different forms of energy can be produced.			
I.	**MOTION** **Students will understand the motion of objects and how forces can change that motion. Students will be able to:**			
I1.	Describe the effects of different types of forces (e.g., mechanical, electrical, magnetic) on motion.			
I2.	Draw conclusions about how the amount of force affects the motion of more massive and less massive objects.			
I3.	Generate examples illustrating that when something is pushed or pulled, it exerts a reaction force.			
J.	**INQUIRY AND PROBLEM SOLVING**			

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	Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:			
J1.	Make accurate observations using appropriate tools and units of measure.			
J2.	Conduct scientific investigations: make observations, collect and analyze data, and do experiments.			
J3.	Use results in a purposeful way: design fair tests, make predictions based on observed patterns and interpret data to make further predictions.			
J4.	Design and build an invention.			
J5.	Explain how differences in time, place, or experimenter can lead to different data.			
J6.	Explain how different conclusions can be derived from the same data.			
K.	**SCIENTIFIC REASONING** **Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:**			
K1.	Give alternative explanations for observed phenomena.			
K2.	Describe how feelings can distort reasoning.			

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K3.	Draw conclusions about observations.			
K4.	Use various types of evidence (e.g., logical, quantitative) to support a claim.			
K5.	Demonstrate an understanding that ideas are more believable when supported by good reasons.			
K6.	Practice and apply simple logic, intuitive thinking, and brainstorming.			
L.	**COMMUNICATION** **Students will communicate effectively in the application of science and technology. Students will be able to:**			
L1.	Record results of experiments or activities (e.g., interviews, discussions, field work) and summarize and communicate what they have learned.			
L2.	Ask clarifying and extending questions.			
L3.	Reflect on work in science and technology using such activities as discussions, journals, and self-assessment.			
L4.	Make and/or use sketches, tables, graphs, physical representations, and manipulatives to explain procedures and ideas.			
L5.	Gather and effectively present information, using a variety of media including computers (e.g., spreadsheets, word processing, programming, graphics, modeling).			
L6.	Cite examples of bias in information sources and question the validity of information from varied sources.			

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L7.	Function effectively in groups within various assigned roles (e.g., reader, recorder).			
M.	**IMPLICATIONS OF SCIENCE AND TECHNOLOGY** **Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:**			
M1.	Explore how cultures have found different technological solutions to deal with similar needs or problems (e.g., construction, clothing, agricultural tools and methods).			
M2.	Investigate and describe the role of scientists and inventors.			
M3.	Explore how technology (e.g., transportation, irrigation) has altered human settlement.			
M4.	Explain practices for conservation in daily life, based on a recognition that renewable and non-renewable resources have limits.			